

Appl. NO. 10/077,719
Amdt. dated: December 1, 2003
Reply to Office Action of July 1, 2003

Amendments to the Claims:

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. A method for the treatment and prophylaxis of conditions of aging associated with a decreased presence of cell-specific carbonic anhydrase enzymes in the brain, such as conditions associated with chronic neurodegenerative conditions including dementias such as Alzheimer's disease, which method comprises

identifying which one or more cell-specific carbonic anhydrase enzymes are present at decreased levels in the blood or brain cells of a subject; and

then the administering over an extended period of time, potentially years, of a pharmaceutically effective, non-toxic amount of a compound that increases the presence of said cell-specific carbonic anydrase enzymes in the blood or brain cells of the subject.

2-4 (canceled)

5. The method of claim 1 wherein said compound is a compound that, when administered to a human patient will promote the natural production of the cell-specific enzyme that is ~~believed to be evidencing said~~ present at decreased ~~presence~~ levels in the subject.

6. (original) The method of claim 1 wherein said administering is by injection.

7. (original) The method of claim 6 wherein injection is intramuscular.

8. (original) The method of claim 6 wherein injection is intravenous.

9. (original) The method of claim 1 wherein said administering is ingestion.

10. (currently amended) The method of claim 1 wherein said compound is selected from the list composed of: zinc, sex hormones, androgens, non-steroidal anti-inflammatory drugs,

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including indomethacin, 1,25 dihydroxyvitamin D3, phorbol myristate acetate, cysteamine; and ~~sufonylamide~~ sulfonylamido derivatives of histamine.

11. (canceled)

12. (new) The method of claim 1 wherein identification is achieved by measuring the levels of CA-I, CA-II, CA-III, CA-IV, and CA-VI in the blood of the subject.

13. (new) The method of claim 1 wherein identification is achieved by measuring levels of CA-I, CA-II, CA-III, CA-IV, and CA-VI in biopsied tissues from the subject.

14. (new) The method of claim 1 wherein identification is achieved by measuring levels of CA-I, CA-II, CA-III, CA-IV, and CA-VI in cerebro-spinal fluid of the subject.